Population Projection

Alberta and Census Divisions, 2016-2041

In 2041, Alberta's projected population will:

- Reach 6 million, an increase of roughly 1.8 million people from 2015.
- Be older, with a median age of 40.3 years, up from 36.2 years today.
- Be increasingly diverse, as arrivals from other countries account for about 46% of the expected growth.
- Be even more concentrated in urban centres, especially along the Edmonton-Calgary corridor; by 2041 almost 8 in 10 Albertans are expected to live in this region.

Population projections for Alberta and its 19 census divisions for the period from 2016 to 2041 are now available. Projections under three different sets of assumptions (low, medium and high population growth scenarios) were prepared. This document will highlight some characteristics of Alberta's projected population, focusing mainly on the results of the medium (reference) scenario unless otherwise indicated.

Alberta Population Projections

Alberta to see continued population growth overall

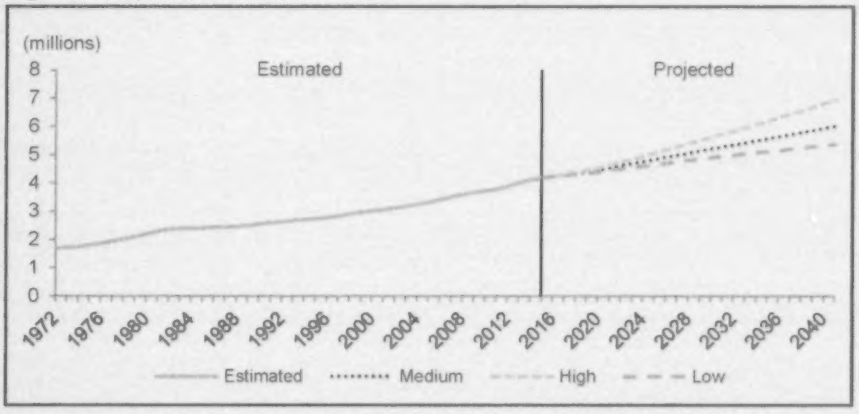
By 2041 Alberta is expected to be home to about 6 million people, representing an average annual growth rate of about 1.4%. This is quite a bit slower than the 2.0% experienced over the previous 25 year period (1990 to 2015). Alberta's population is projected to surpass the 5 million mark by 2028, and reach the 6 million mark by 2041.

From around 4.2 million in 2015, the province's population is expected to add about 1.8 million people by the end of the projection period, according to the medium scenario (Figure 1). Under the low and high scenarios, Alberta's total population in 2041 is projected to be around 5.4 million and 7.0 million; gains of 1.2 million and 2.8 million respectively.

The current economic downturn will weigh on the province's population growth in the short term, as outflows of some residents put a damper on net migration levels (Figure 2). Over the next five years, average annual growth is expected to be 1.3%, compared to 2.4% over the 2010-2015 period. A moderate recovery is expected and, between 2020 and 2025, the average annual gain in population is expected to climb to 1.6%. In the latter part of the projection period (2025 to 2041), population growth is expected to slow gradually to an average annual rate of 1.4% due to moderating net migration, lower fertility rates and population aging.

In all three scenarios, future population growth is mainly driven by migration, particularly international migration. For the period between 2015 and 2041, total net migration (1.14 million people) is projected to account for just under two-thirds of

Figure 1: Population of Alberta, 1972-2041



Sources: Statistics Canada and Alberta Treasury Board and Finance

About the Projections

These projections do not take into account the recent fires in Fort McMurray and surrounding region. At the time of production, too little information was available to make reasonable assumptions on the impact the fires could have on the population who live there. As more information becomes available over the next few months, the projection for this region may be revised.

Alberta Government

June 21, 2016
Treasury Board and Finance
Office of Statistics and Information - Demography

Alberta's population growth under the medium scenario, with natural increase accounting for the remaining 37% (Figure 2). Of the anticipated net migrants, almost three-quarters would come from other parts of the world. In the near term, total net migration is expected to slow due to the economic slowdown, before picking up again as the economy improves.

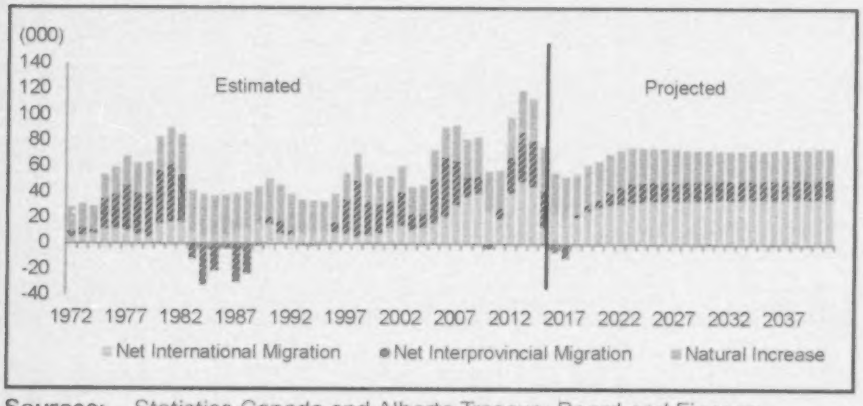
International migration: a primary population growth driver

About 46% of the expected growth in the province's population over the projection period will be due to international migration (Figure 2), representing a net gain of about 840,000 people. The addition of new residents from other countries will continue to add to the diversity of the province's population.

Alberta remains attractive to interprovincial migrants

Due to a slowdown in Alberta's economy, net interprovincial migration softened in 2015 and is expected to weaken further, leading to net outflows in the first two years of the projection (Figure 2). A return to net inflows is expected as the economy improves. Net interprovincial migration will account for 17% of the growth, or around 300,000 new residents, between 2015 and 2041.

Figure 2: Components of Population Growth, 1972-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Natural increase remains a significant, but diminishing source of growth

Natural increase (births minus deaths) is expected to continue to have a positive impact on the province's growth, adding about 670,000 people by 2041 (Figure 2). The magnitude of natural increase's contribution to population growth is partly attributable to migration. The over 1.1 million (net) migrants projected to arrive over the next 26 years will be overwhelmingly young adults. This expansion of Albertans in child-bearing ages will result in an increasing number of births over the projection period. Despite this, the positive impact of natural increase on Alberta's growth will diminish over time as deaths increase rapidly with the aging of the baby boom cohort.

On an average day in 2015, about 158 new Albertans were born and 66 people died. By 2041, the average number of daily deaths will almost double (126), while births will increase to 191. The narrower gap between births and deaths in the future means that the average daily population gain due to natural increase will drop to 65 by 2041 from 92 in 2015.

Albertans are expected to live longer

A girl born in Alberta in 2015 could expect to live to 83.5 years of age on average, while a boy could see 79.0 years. Under the medium scenario, life expectancy at birth for females is projected to rise to 86.5 by 2041, while life expectancy for males is expected to reach 83.1 years. Consistent with historical trends, males are expected to see faster gains in life expectancy, and the gap between females and males will narrow from 4.5 years in 2015 to 3.4 years in 2041.

A man reaching age 65 in 2015 could expect to live, on average, to 83.9 years of age, compared to 86.9 for women. Life expectancy at age 65 is projected to increase to 86.0 for males and 88.8 for females by 2041.

Alberta's population getting older

Alberta was the youngest province in 2015. However, its population is aging due to below replacement fertility rates and rising life expectancies. Despite the anticipated addition of a substantial number of young people through migration, population aging is expected to continue over the projection period (Figure 3). In 2015, the median age[1] of individuals in the province was 36.2 years and is projected to climb to 40.3 by 2041.

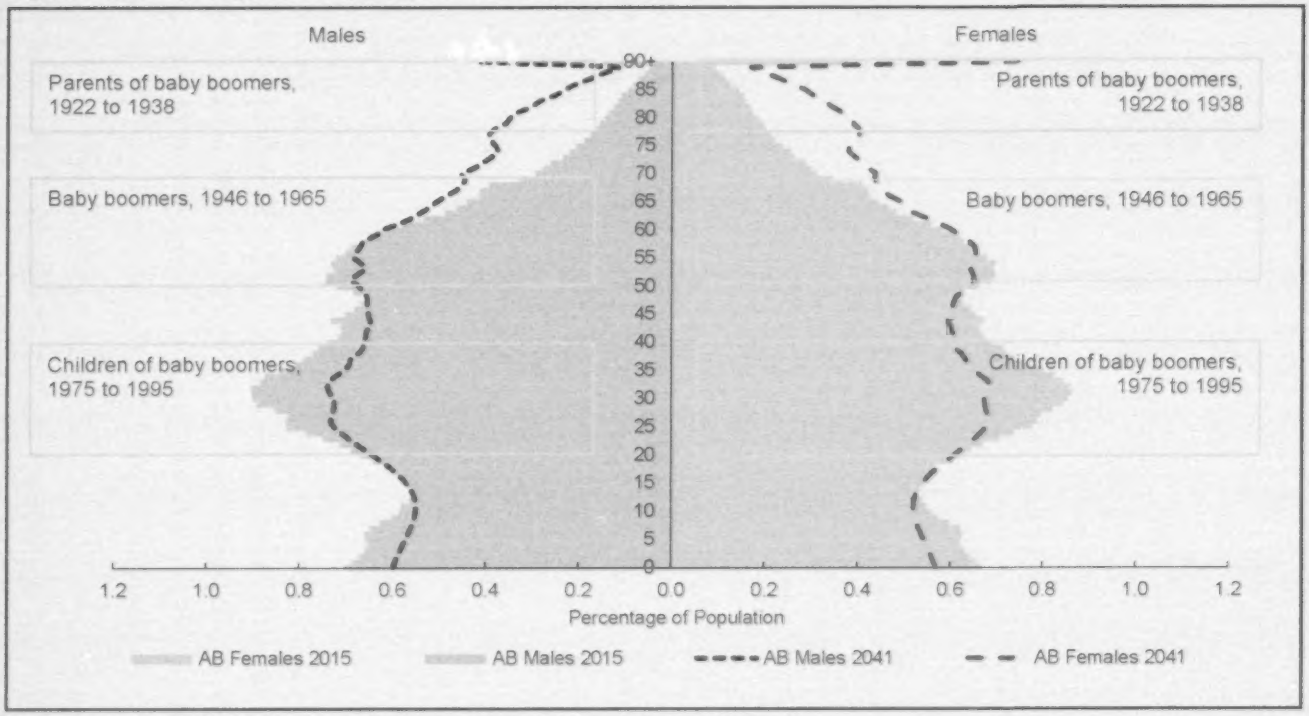
Baby boomers accelerate aging

The large baby boom cohort, who were born between 1946 and 1965, will have a significant impact on the rate of population aging over the next few decades. In 2015, these Albertans were aged 50 to 69 years and accounted for almost a quarter of the provincial population (Figure 3). As the baby boomers get older, the aging of the population in Alberta is expected to accelerate until 2030, when the last of that large group reaches the age of 65.

Those aged 65 and older represented 11.6% of the population in 2015, but by 2041, almost one in five Albertans are expected to be in this age group in the medium scenario.

[1] The exact age at which half the population is younger and half is older.

Figure 3: Alberta's Population Pyramids, 2015 vs. 2041



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2015.

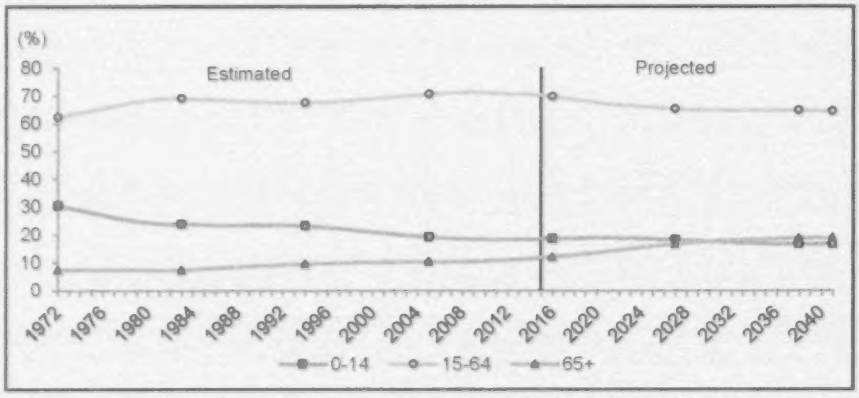
Males will continue to outnumber females

Alberta has consistently been home to more males than females due to the large proportion of males migrating to the province. This trend in the sex ratio (ratio of males to females) is expected to continue. Although the sex ratio of migrants is forecast to become more balanced over the projection period, the net migration inflows over the projection will tip the province's overall sex ratio in favour of males. Over the projection period, however, the sex ratio will decrease slightly with the aging of the large baby boom cohort into senior ages, in combination with the higher female life expectancies. The sex ratio in Alberta is expected to remain relatively stable at 103 to 104 males per 100 females.

More people depend on the working age population

The number of working age Albertans (aged 15 to 64 years) is expected to grow under all scenarios, increasing from just over 2.9 million in 2015 to almost 3.9 million by 2041 under the medium scenario. However, as a share of the total population, this age group is anticipated to shrink, falling from 70% in 2015 to around 64% in 2041 (Figure 4).

Figure 4: Proportion of Total Population by Age Group, 1972-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Due to the rising share of seniors and the declining share of working age population, the total dependency ratio[2] is expected to increase significantly over the projection period. In 2015, there were about 43 dependents for every 100 Albertans aged 15 to 64 years. By 2041, it is expected that the total dependency ratio will climb to 55. The increase will be driven by the increase in the ratio of the elderly (65+) portion of the population to the working-age population (Figure 5).

Age Structure of Alberta

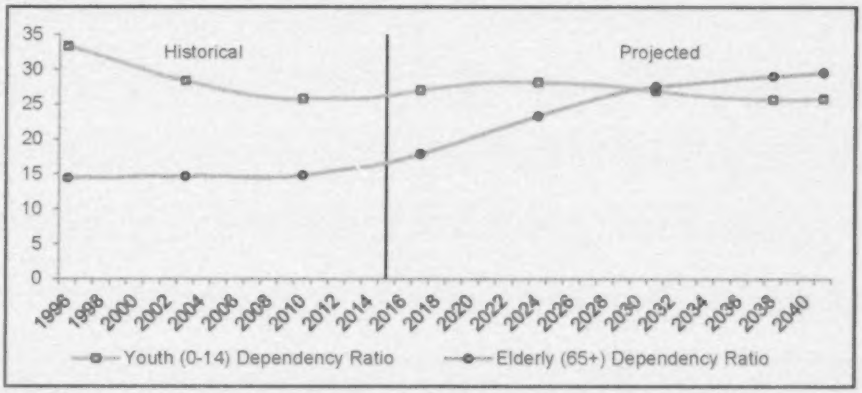
By 2041 there will be more people of every age compared with 2015. The baby boomers will be swelling the ranks of the province's oldest residents, while their children, who are the oldest of the 'echo' generation, will have just entered their senior years (Figure 6). The next section outlines the projected size of specific age groupings.

Stable numbers of young children and growing in school ages

The size of the youngest age group (0 to 4 years) is mainly impacted by the number of births and is a good barometer of possible demand for elementary

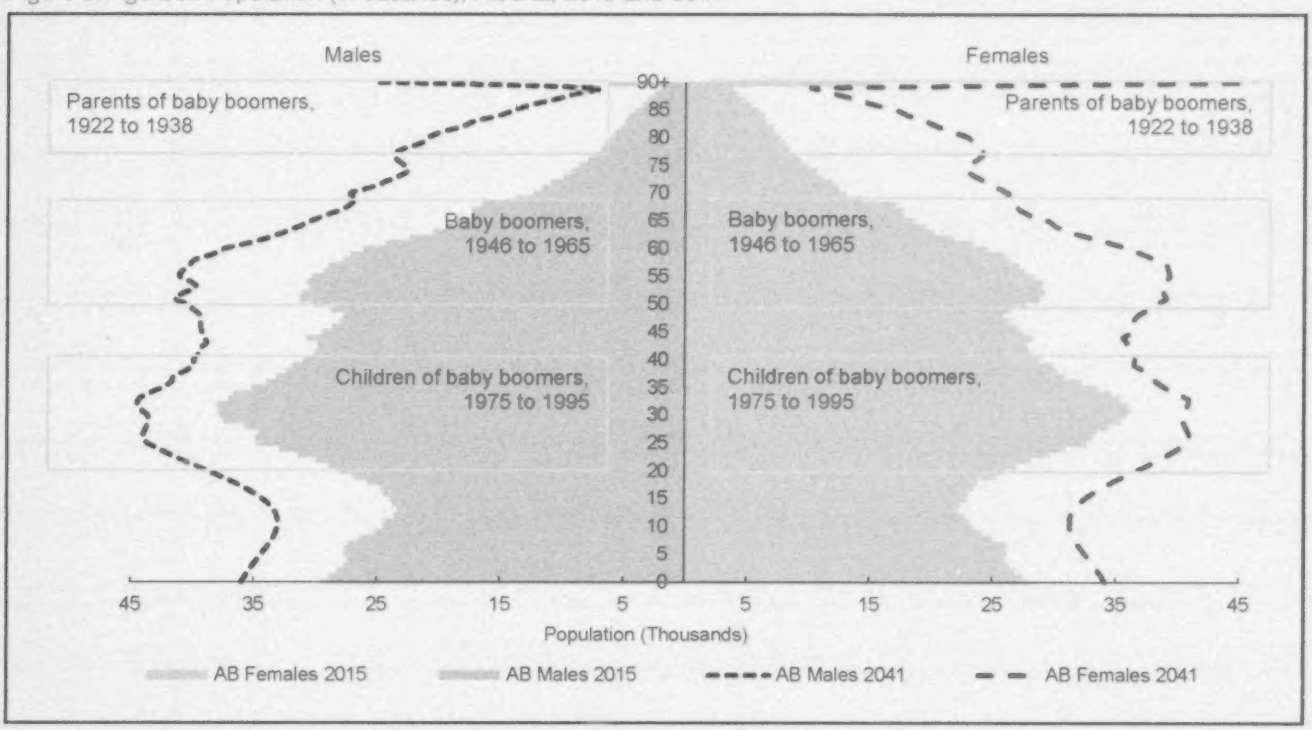
[2] The dependency ratio refers to the population not typically in the labour force (children and the elderly) to the population that typically is (those aged 15 to 64).

Figure 5: Dependency Ratios (per 100 working age individuals), 1996-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Figure 6: Age/Sex Population (Thousands), Alberta, 2015 and 2041



Sources: Statistics Canada and Alberta Treasury Board and Finance
Note: Information boxes indicate generations in 2015.

education in the near future. The size of this age group is expected to be relatively stable over much of the projection, averaging around 300,000 children.

The population aged 5 to 17 years represents potential school demand. The number of school-aged children will likely continue to rise throughout the projection due to Alberta's fertility and migration rates, and growth is particularly strong to 2030. Between 2015 and 2030 this age group is expected to increase at an average annual rate of 1.7% (Figure 7), adding about 350,000 new school aged children.

An expansion of those in working ages, but a declining share

The young adult cohort (aged 18 to 24 years) is usually associated with attending post-secondary institutions or participating in the youth labour force. In 2015, the share of the population for this cohort was about 9% and is projected to be relatively stable throughout the projection. However, in the short term, the size of this age group will drop from about 394,000 in 2015 to about 364,000 in 2020 because of a smaller cohort moving into this age group. Thereafter, the number of young adults is expected to increase steadily, as migration picks up, reaching about 540,000 in 2041 (Figure 8).

The core labour force age group (25 to 54 years) will increase in size throughout the projection period, although the expansion will be quite small in the first five years. This is due to the impact of lower expected levels of migration on this cohort in the short term (Figure 8). Despite the growth in numbers, this cohort as a share of the total poulation will decline from 45% in 2015 to just 40% by 2041 as baby boomers leave the workforce. In 2015, the youngest baby boomers were 50 years of age; almost one out of five in the core working age group were baby boomers. By 2020, all of the baby boomers will have aged out of the core labour force, but numbers will continue to rise due to migration.

The overall working age population (15 to 64 years) will also grow, but it shows a similar slowdown in the first few years of the projection (Figure 8). The working age cohort is expected to expand by 32% over the projection period, but since the overall population will expand by 43%, this age group will make up a declining share of the total population.

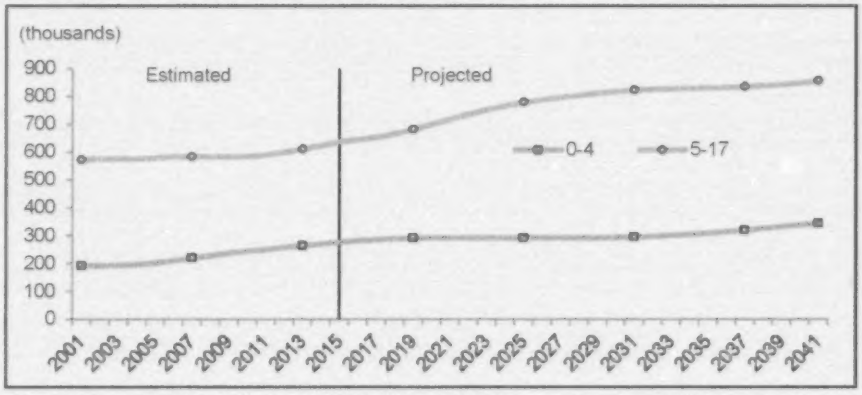
Aging boomers accelerate growth of senior population

The population aged 65+ is expected to increase both in number and population share throughout the projection period. In 2015, about 490,000 Albertans were aged 65 and older, accounting for just over 11% of the population. The number of seniors is expected to top a million by 2034 and exceed 1.1 million by 2039 (Figure 9). Under the medium scenario, almost one in every 5 Albertans in 2041 would be 65 or older. In 2015, there were about 426,000 more children (aged 0 to 17 years) than seniors. By 2041, this difference will likely shrink to under 60,000.

Rapid growth of the oldest-old

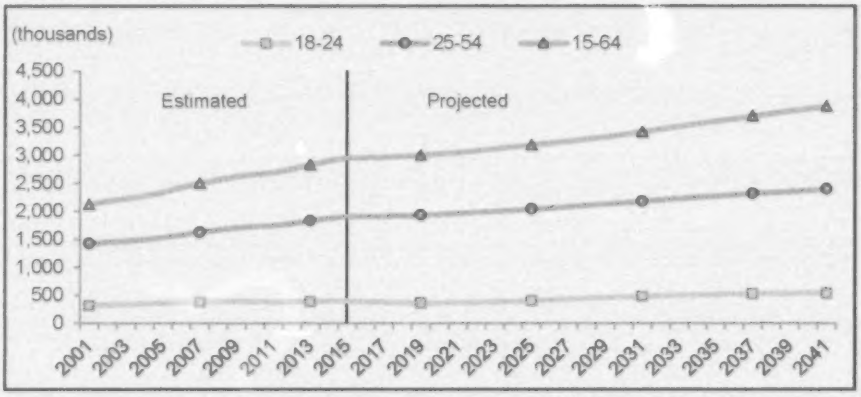
In assessing demand for services such as health care, assisted living and seniors' housing, it is especially important to look at those 80 years and older.

Figure 7: Population Aged 0 to 17 years, 2001-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

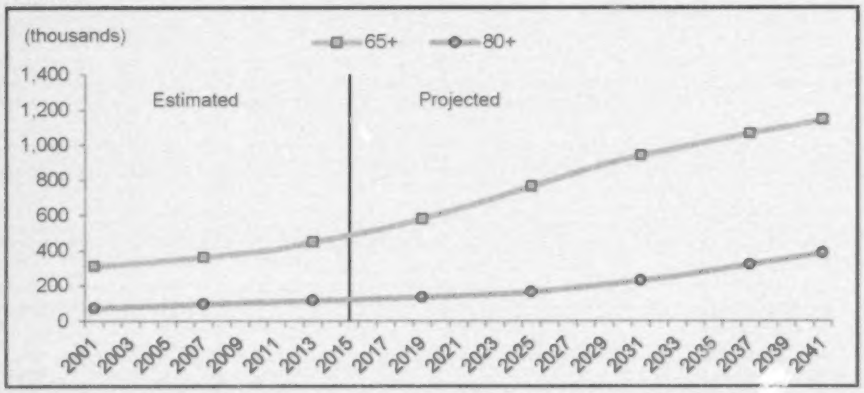
Figure 8: Population Aged 15 to 64 years, 2001-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

This age group is expected to double as a share of the population, increasing from 3% in 2015 to 6% in 2041, which represents an absolute increase of about 263,000 80+ year olds and a percentage increase of 214% (Figure 9).

Figure 9: Population Aged 65 and older, 2001-2041
Alberta



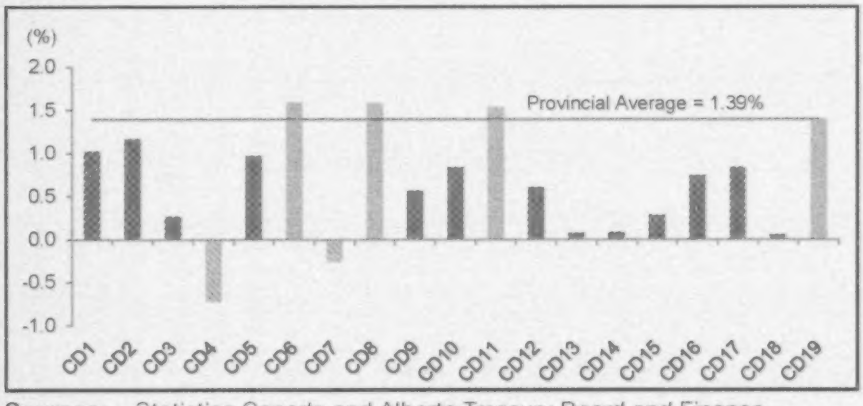
Sources: Statistics Canada and Alberta Treasury Board and Finance

Regional Population Projections

Regional population growth is determined by the current age structure, natural increase and the extent to which the region gains or loses population through migration. The next section will highlight some characteristics of the 19 census divisions in Alberta.

The current age structure is a major determinant of the number of births and deaths. A region with a greater proportion of older people will likely experience more deaths, whereas a region with a large proportion of young adults will likely see more births. In addition, since migration is an activity undertaken primarily by young adults, the age structure will impact the region's migration patterns.

Figure 10: Average Annual Population Growth by Census Division, 2015-2041
Alberta



Sources: Statistics Canada and Alberta Treasury Board and Finance

Older regions, those with a greater share of seniors in the population, are more likely to experience very low or negative natural increase leading to downward pressure on population growth (Appendix- Map 1). The oldest regions of the province in 2015 were CD 4 (Hanna), CD 13 (Whitecourt) and CD 7 (Stettler) with median ages of 41.6, 41.5 and 40.1 years respectively. These three are among the regions projected to see the least growth from natural increase over the projection.

Migration is a key determinant of population growth for most regions. It is common for regional patterns of migratory movements to be relatively consistent over time. Some regions have, for many years, seen their young people move to other regions of the province (intraprovincial migration); for example, CD 17 (Slave Lake), CD 19 (Grande Prairie) and CD 2 (Lethbridge). Other regions have a long-standing and significant attraction to interprovincial migrants. Some regions gain from the settlement choices of immigrants, while others receive almost none. Some regions, such as CD 16 (Wood Buffalo) tend to draw a significant number of interprovincial migrants, yet tend to lose population to other parts of the province at the same time, leading to lower growth from migration than might be expected.

In general, the largest centres in Alberta capture most of the growth from international migration sources, while also gaining from migratory movements both within Alberta and between provinces (Appendix - Map 2).

Most regions expected to see population growth

With the exception of two census divisions, CD 4 (Hanna) and CD7 (Stettler), all regions in Alberta are expected to see positive growth over the projection period. Although CD7's population is declining, the decrease is marginal (average annual growth of -0.03%) and the population is relatively stable (Figure 10). CD 3 (Pincher Creek), CD 13 (Whitecourt), CD 14 (Edson),

and CD 18 (Grande Cache) are also expected to have relatively stable populations due to minimal expected growth over the projection period. The strongest growth is projected to occur in the Edmonton-Calgary corridor (CDs 6, 8 and 11) and in CD19 (Grande Prairie) (Appendix - Map 3).

Regional Age Structure

Overall increase in children, but shrinking share

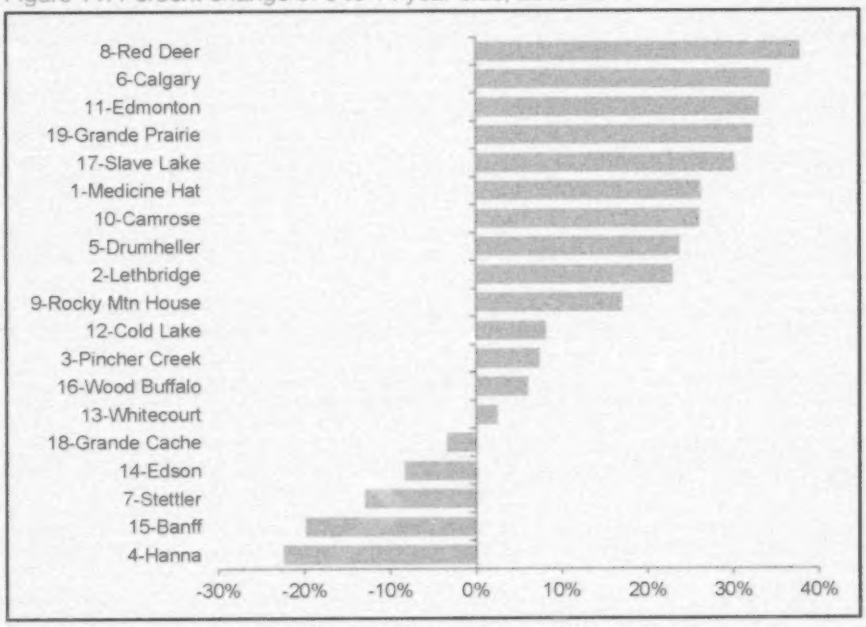
There is considerable regional variation in the proportion of the population in the age group 0 to 14 years. At the top end, about 28% of CD 17's (Slave Lake) population was under the age of 15, and at the other end of the spectrum, the proportion of children in CD 15 (Banff) was just under 15% in 2015. The share of children is projected to drop or remain stable in almost all census divisions; CD 17, with its high proportion of Indigenous residents and high fertility rates, is the exception. The share of children in this region is expected to increase by 1.4 percentage points between 2015 and 2041. Census divisions 17 and 15 will continue to have the highest and lowest population shares of children respectively in 2041.

While regional population shares of children are expected to drop, the absolute number of children will increase in most census divisions (Figure 11). The largest absolute increases in the number of children are expected in CD 8 (Red Deer), CD 6 (Calgary), and CD 11 (Edmonton) and mainly due to the large size of their overall populations. These three census divisions, together with CD 19 (Grande Prairie) and CD 17 (Slave Lake), make up the five regions with the largest percent growth of children to 2041.

Proportion of working age to shrink in every region

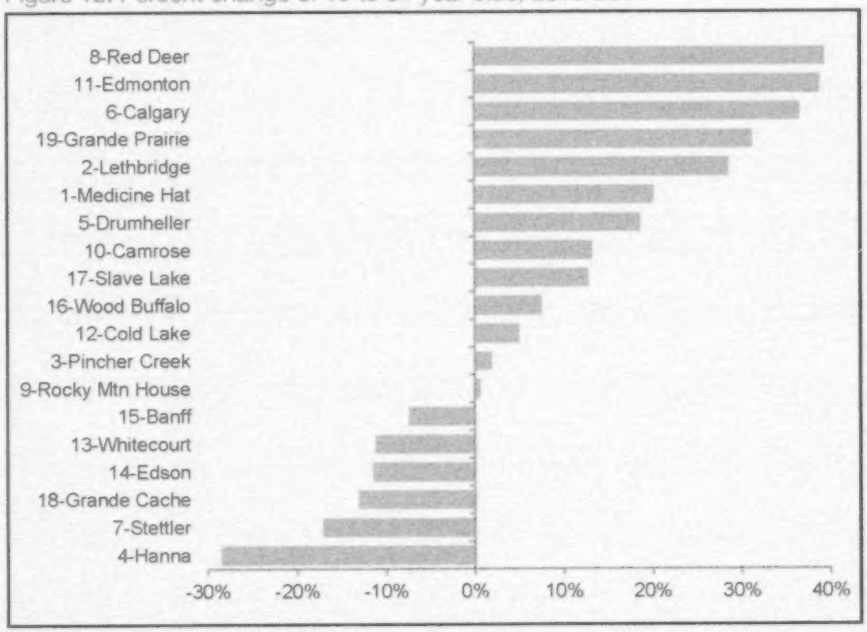
All but six census divisions are projected to see an increase in the absolute number of people in working ages (15 to 64 years) between 2015 and 2041 (Figure 12). Since migrants are predominantly young adults, those regions who receive the most net migrants are expected to see the greatest gains. The three census divisions that make up the Edmonton-Calgary Corridor claim the top spot, followed by CD 19 (Grande Prairie) and two southern regions, CD 2 (Lethbridge) and CD 1 (Medicine Hat). Not surprising, given the projected

Figure 11: Percent change of 0 to 14 year olds, 2015-2041



Sources: Statistics Canada and Alberta Treasury Board and Finance

Figure 12: Percent change of 15 to 64 year olds, 2015-2041



Sources: Statistics Canada and Alberta Treasury Board and Finance

contraction of its overall population, CD 4 (Hanna) is expected to see the largest drop in its working age population.

In 2015 the regions with the highest share of the working age population were CD 16 (Wood Buffalo), CD 15 (Banff), CD 6 (Calgary) and CD 11 (Edmonton); all had shares over the Alberta average of 70%. In contrast, about 6 out of 10 people in CD 3 (Pincher Creek) were of working age. The share of population aged 15 to 64 will decline in all census divisions between 2015 and 2041. CD 11, CD 16 and CD 6 will continue to have the highest shares above the provincial average of 64%.

Regional differences in population aging

In 2015, roughly one in nine Albertans was 65 years of age and over; in 2041, this number is expected to be about one in five. The proportion of the population aged 65+ varies regionally throughout the province due to different age structures and migration flow patterns (Figure 13). In 2015, CD3 (Pincher Creek) and CD4 (Hanna) had the highest shares of seniors among the CDs at almost 19% and about 18% respectively, while Wood Buffalo (CD16) had the lowest share (2.8%). In 2041, it is expected that CD4 (Hanna) will have the highest share of seniors at 27%, whereas CD17 (Slave Lake) will have the smallest share with only 13% of the population aged 65 years and over.

Focus on selected regions

The following sections will highlight some of the factors contributing to projected growth for select regions in the province.

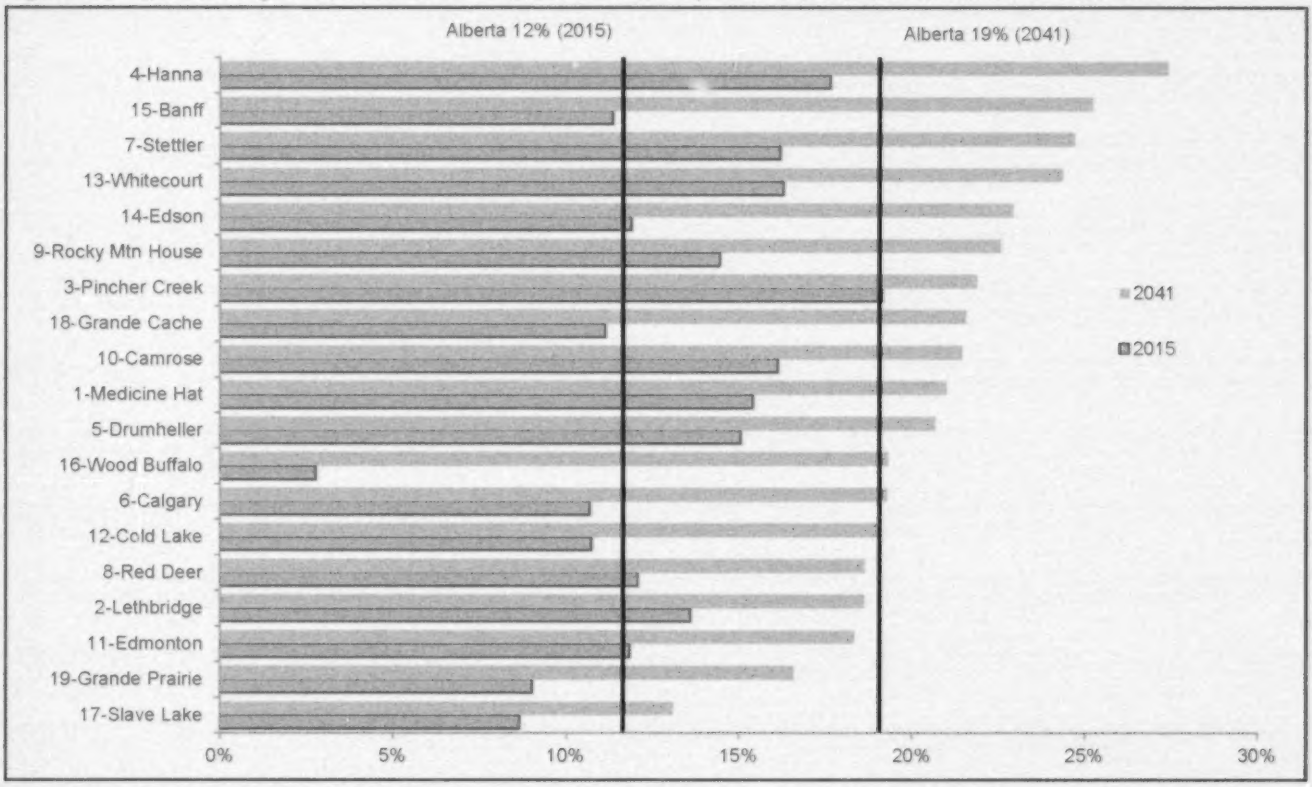
Edmonton-Calgary corridor: urbanization continues

The Edmonton-Calgary corridor consists of three CDs (6, 8 and 11) and includes the Census Metropolitan Areas of Edmonton and Calgary, as well as the city of Red Deer. Covering only 6% of the land area, the corridor is home to three-quarters of the population and is the most urbanized area of the province[3]. Projected growth in all three of these CDs will outpace the provincial average (Appendix - Map 3). By 2041, almost four out of five Albertans are expected to live in this region.

The anticipated growth in the Edmonton-Calgary corridor is supported by historical migration patterns within the province. As the most populous region of Alberta, this area attracts most of the international migrants to the province, as well as about two-thirds of the migrants from

[3] 2011 Census of Canada, Statistics Canada

Figure 13: Population Aged 65 and over as a Percent of Total Population, Census Divisions, 2015 and 2041



Sources: Statistics Canada and Alberta Treasury Board and Finance

other parts of Canada. On average, about nine out of ten immigrants originally migrate to this region. In addition, each of the census divisions that make up the corridor tend to gain residents through migration from other parts of the province.

The three most urban census divisions are expected to draw the bulk of all categories of migrants to Alberta over the projection period and their migration patterns will reflect those of the province as a whole. Because of the current economic slowdown, migration to Alberta is expected to soften over the next few years. Alberta is forecasted to see net outflows of interprovincial migrants in the next two years due to weaker labour conditions, before slowly beginning to recover. This, however, will be offset by immigration, which is expected to set a new record in 2016. Thereafter immigration is forecasted to slow from recent highs, but still remain higher than its long-term historical trend. Net outflows of non-permanent residents will also weigh on population growth over the next few years, due to Federal changes to the Temporary Foreign Worker Program and Alberta's economic conditions.

Wood Buffalo: Adjusting to the economic times

Low oil prices have cooled the booming oil sands industry, and investment is expected to slow over the next three years. This has drastically halted the rapid population growth experienced in recent years in CD 16 (Wood Buffalo). Most of the recent growth in this region was driven by interprovincial migration, since CD 16 captures only a small share of Alberta's international migration, including immigrants and non-permanent residents.

The current downturn and uncertainty has resulted in downward revisions to the projected migration pattern for CD 16. Driven by strong net outflows of interprovincial migrants, CD 16's population is forecasted to shrink over the next three years, as the economy continues to adjust to lower oil prices. As oil prices improve later in the projection period, and activity picks up, the region is expected to gradually return to a more moderate level of positive net migration.

Wood Buffalo is perhaps one of the hardest economically hit areas of the province. Following three years of expected population contraction, its population is projected to experience positive growth every year thereafter. Natural increase has a fairly substantial impact on the growth in this region. Although not quite strong enough to offset expected net outflows of migrants in the next three years, natural increase accounts for a large proportion of CD 16's growth. Thanks to its young population, there are relatively few deaths and a significant number of births. Overall, average annual growth for CD 16 between 2015 and 2041 is forecasted at 0.8%, similar to previous versions of this projection.

Grande Prairie: a service centre for Alberta and British Columbia

CD 19, which includes the city of Grande Prairie, has experienced robust growth over the last decade or so. At 1.4%, the region's average annual growth (between 2015 and 2041) is expected to remain slightly above the provincial average (Appendix - Map 3).

Historically, CD19 captured a relatively small share of net migration flows to the province from international and other regions of Canada, and tended to "feed" population to other regions of Alberta.

The regional economy has a large natural resources sector component, including oil and gas, forestry, and agriculture. The city of Grande Prairie is a service area for northwestern Alberta and northeastern British Columbia, regions with abundant reserves of oil and gas. While resource activities may attract more males, the service sector is expected to attract a more balanced mix of people. Compared with CD16 (Wood Buffalo), for example, CD19's (Grande Prairie) sex ratio is much less skewed to males, and the region is more attractive to young adults of both sexes in the family formation stage. As a result, the population in CD19 contains momentum for future growth.

Because of the oil and gas and service sector nature of this region, CD 19 is expected to be impacted by low oil prices, with net outflows of migrants forecasted over the next three years. However, because of the diversity of this region, it will not be impacted as much as CD 16 (Wood Buffalo). Population growth in this region is expected to remain positive throughout the projection.

For more information on the *Population Projections* **see:**

Data for Alberta Population Projections.

Includes estimated (1996-2015) and projected (2016-2041) population of Alberta and its 19 Census Divisions by single year of age and sex as well as some summary statistics.

Population Projection Methodology and Assumptions.

Details the methodology and assumptions of the long-term population projections.

Contact

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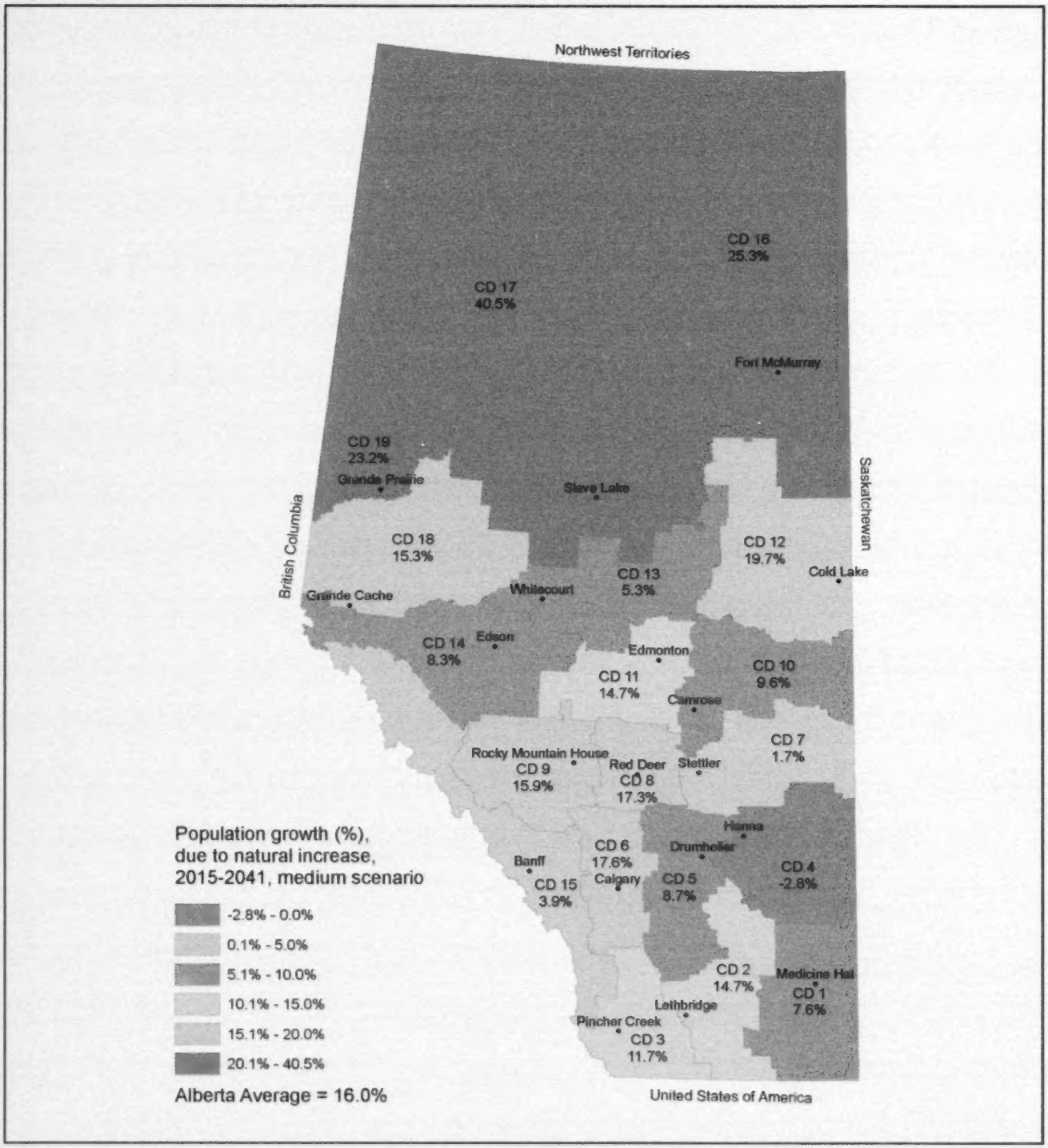
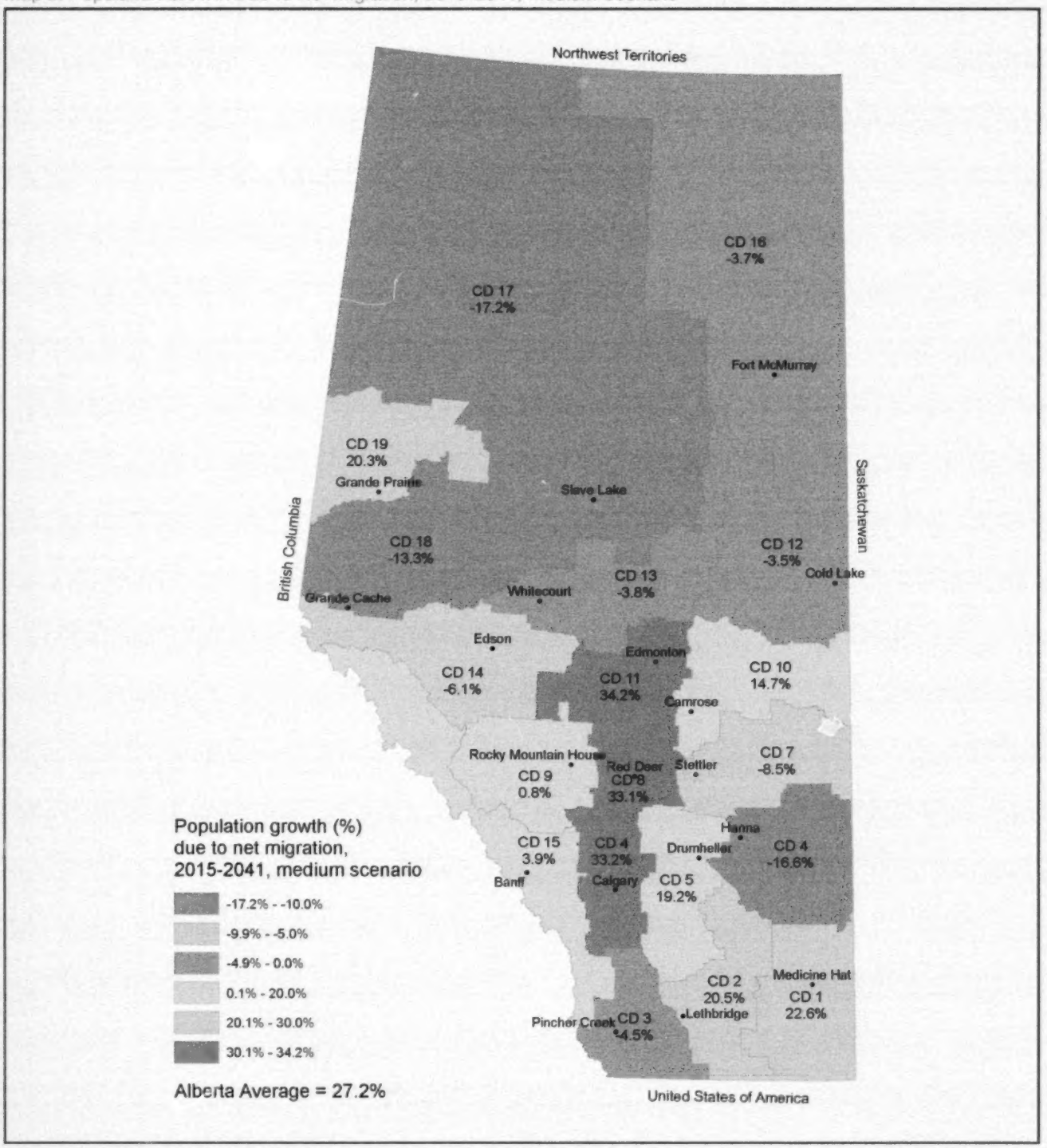
Appendix

Map 1: Population Growth Due to Natural Increase, 2015-2041, Medium Scenario



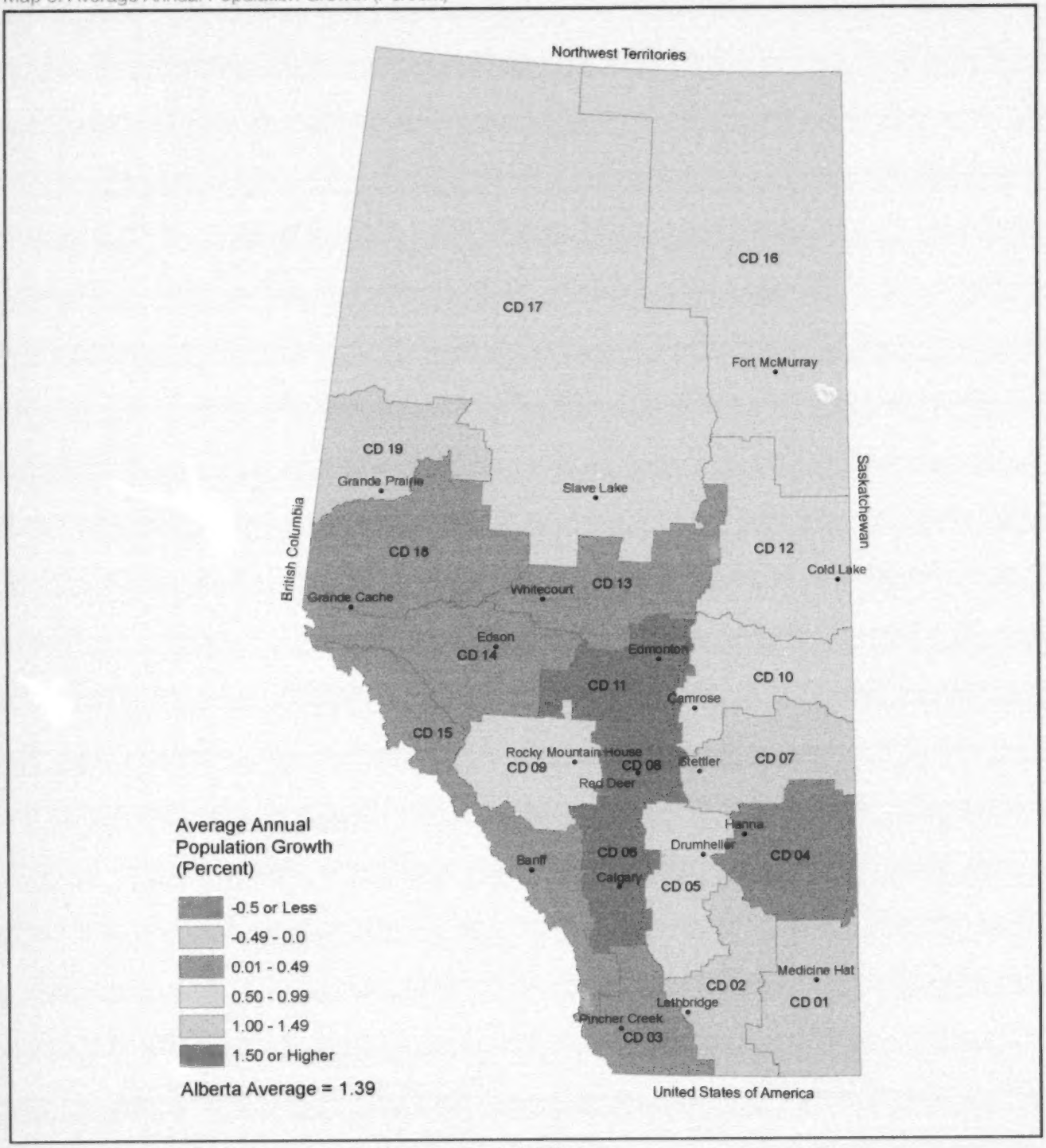
Sources: Statistics Canada and Alberta Treasury Board and Finance

Map 2: Population Growth Due to Net Migration, 2015-2041, Medium Scenario



Sources: Statistics Canada and Alberta Treasury Board and Finance

Map 3: Average Annual Population Growth (Percent)



Sources: Statistics Canada and Alberta Treasury Board and Finance